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Glittering in the Dark: Memory, Culture, and Critique in Light of the History of Information

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ABSTRACT

An ethical and human-centered approach to Information Science requires rigorous, historically-informed analysis of both the resources that inform this discipline and the cultural role it inhabits. This session will present and discuss significant recent developments in the history and foundations of the field. ASIST has formally established a new volunteer administrative position of ASIST Curator. Kathryn La Barre, the newly-appointed Curator, will describe the role and responsibilities of this position and assess the state of Information Science history in relation to the conference themes. In two complementary reports: Michael Buckland will examine theoretical accounts of the materials made use of in Information Science; and Sachi Arafat will explain why Information Retrieval and Information Science should be integrated and rethought as a science of technology-mediated experience, and how this new *kind* of science relates to the pre-modern memory arts tradition.

KEYWORDS

ASIST Curator, Information Retrieval, Information Science, Robert Pagès, Technology-mediated experience.

INTRODUCTION

The goal of this interactive panel is to provide a forum for discussion and critique, as well as a platform to support development of propositions that could inform both the development of ethical and human-centered approaches to Information Science and the role of the ASIST Curator.

KATHRYN LA BARRE: ON CURATION, DOCUMENTATION, AND CRITIQUE

Kathryn La Barre, ASIST Curator, will discuss the creation of the Curator position and attendant responsibilities, which include “monitoring the discovery, preservation, and accessibility of resources relating to the history of the ASIST” and “working to promote policy, best practices and documentation to preserve Association, Committee, Chapter, and SIG records.” Motivating the creation of this role was a simple notion, “If we don’t have a history, we lack an identity.” For over eighty years, ASIST has participated in, or has been the beneficiary of numerous specialized conferences, oral history programs, and other initiatives in the field of Information Science. During this time, ASIST has accumulated photographs, recordings and other archival material which are at increasing risk of deterioration and loss. Many materials are undocumented and thus inaccessible, while others are scattered in private or temporary holdings. The net result that they are hidden from discovery and thus inaccessible. There is growing interest world-wide in documenting the history and development of documentation, and information science and technology, and much work to be done to preserve and create access to such materials. One key focus of my presentation will be to engage with session participants about their concerns and priorities.

The title of this position, Curator, was chosen carefully as the duties extend beyond that of an archivist or historian. I envision a role that includes consulting and documenting current material and acquisitions, acting as a subject specialist, and interpreting the artifacts of our mutual cultural heritage. Serving as Curator provides a unique vantage point from which to unearth and amplify the intellectual history embedded in these materials. The conference theme evokes the need to scaffold the development of an ethical and human-centered information science. Concerns about sustainability, privacy, human agency and equity are not new as they span both the past and future of Information Science. The conference also engages with rapid developments and emerging

technologies in artificial intelligence, big data analytics, virtual and augmented reality, and embedded, ubiquitous computing. These are all technologies with which members of our organization share deep experience and expertise, during the period it was called the American Documentation Institute, or the American Society for Information Science, or the American Society for Information Science and Technology, or as today, the international Association for Information Science and Technology.

The secondary focus of this presentation will be on the rich intellectual history of ASIST that intersects with and provides context for contemporary discussions of sustainability, privacy, human agency and equity. Understanding our shared history of ideas and approaches will help us better understand current biases, developments, and debates; help us ask better questions; and inform deeper critiques of the technologies we seek to implement.

MICHAEL K. BUCKLAND: FROM BIBLIOGRAPHY TO INFORMATION SCIENCE: ROBERT PAGÈS, 1919-2007.

Bibliography has a long history and developed rapidly from the 1890s onwards. But the limitation of bibliography to printed documents was increasingly seen as an unacceptable constraint in providing access to what people needed to know. Suzanne Briet's manifesto *What is documentation?* (1951) asserted the need to provide access to a broader range of evidence. Her declaration that an antelope placed in a zoo and in a taxonomy becomes a document is now well-known. But neither Briet nor her successors provided much explanation or guidance on how to proceed. What has been overlooked is that key ideas in Briet's manifesto had been presented and discussed in a leading journal three years earlier by Robert Pagès.

Robert Pagès (1919-2007) was a clandestine anarchist activist who used the false name Rodion. Later he became a well-known researcher in social psychology. But between those two careers he became a student in the program of professional education in documentation in Paris where he was one of Briet's students. As a student of documentation, he wrote two theses. The first, on documentary transformations and cultural milieu, was published as an article in F.I.D.'s *Revue of documentation* in 1948. The second thesis eventually appeared as a book on cultural and documentary classifications. In Information Science, Pagès has been remembered, if at all, for a powerful, concise indexing language named CODOC (or "coded analysis"). He was especially interested in language and he published two books and a novel about sense-making.

Pagès' objective was to relate information science (he used "documentology") to theories of human culture and, like Briet, he saw information science as a cultural technique. He wrote that documents are to culture what machinery is to industry and that nothing was more important for the study of culture than examination of its infrastructure, which was becoming more technological, more controlled, and more organized. Pagès is an interesting figure not only for his explanation of ideas hitherto associated with Suzanne Briet, but also because his background in Trotskyism, psychology, and cultural studies was very different from the scientific enthusiasm for technology of pioneers of documentation and information science in the U.S.A. at that time.

I will briefly summarize Pagès' career and ideas as they relate to not only Briet, but also to the conference theme.

SACHI ARAFAT: FROM SEARCH AS MEANING-SUGGESTION, TO THE MEMORY ARTS, AND TOWARDS A SCIENCE OF TECHNOLOGY-MEDIATED EXPERIENCE

As search applications expand well beyond simple finding to facilitate diverse cognitive goals such as enjoyment and arbitrarily-purposed 'information experiences', and as we move away from the point-click mode of interaction to specify searches in augmented and virtual-reality modes: what search is, and hence what the disciplines (e.g. Information Retrieval (IR) and Information Science (IS)) studying and facilitating it should become, emerge as pressing questions. Given the modern context, search should be understood not in its usual technical sense as a relation between queries and documents, but more generally as a (hermeneutical) process of meaning-suggestion. Related to these are further foundational questions about what constitutes context, the query, document and 'user', and others whose resolve determine how we study and build not only the next generation of interactive devices, but more generally, how we understand and facilitate technology-mediated experiences in general.

I argue based on the findings in my recent book (Arafat, S. & Ashoori, E., *Search Foundations*, 2018), that the ‘foundations’ of IR and IS require serious re-orientation without which serious progress in IR and IS is unlikely. That as the relationships between humans and interactive technology become more intimate such that every interaction with ubiquitous – and “vanishing” – programmable devices is a “search”, the focus of any future ‘search science’ – and I do think it should be a science albeit a kind that is not at all common – must be technology-mediated human experience as a whole. This embodied and embedded experience is neither solely ‘mental stuff’ nor an experience divorced from an environment and culture, and it goes beyond both simple ‘user interaction’ and the idea of ‘user engagement’ or ‘user experience’ when they are limited to accounts of ‘user-behaviour’.

I call such a science, that seeks to understand and explain such experience, a science of technology-mediated experience. Any such science, in addition to its explanatory function (as is a function of IS relative to search systems), must have a ‘practical art’ or ‘making function’ (as is the function of IR to search systems) that facilitates the design, creation and/or ‘arrangement’ of devices, which is to effect users towards particular experiences in a way that is coherent with the determinations of the explanatory aspect of the science. While the technical design of the device is crucial for this practical art, the main focus must be the experience itself, and as such, it is unlike IR. Instead, it resembles the pre-modern ‘memory arts’: techniques for associating-between and traversing (through remembering and imagining) an existent set of images, symbols and/or ideas (whether ‘in mind’ or in a physical space, or a combination thereof), purposed to lead to the discovery of new knowledge, or for having new (beneficial) experiences; the modern computational device was originally conceived as a tool for such discovery. I argue that the ‘practical art’ function requires serious appropriation of the memory arts, a discourse centred-upon (technique-mediated) human-experience. Moreover, the explanatory function of this science is not unlike that of any other existent science as it involves systematic integration between humanistic and technological explanatory aspects of a particular information event. This is what makes this science rather peculiar, and as I believe, makes it a new *kind* of science. While I was led to this idea through analysing IR and IS discourses, this new science has a larger scope: it must at once systematically integrate (and not just juxtapose) technical computer science discourse on the one hand and with cultural and philosophical discourses on the other.

I will also briefly discuss the foundations research culture that would support the development of such a science and its ethico-social disciplinary implications.

CONTRIBUTION

This panel provides seminal context that enhances the conference theme which interrogates the enterprise of building an ethical and sustainable information future. Conference participants face an information future replete with inextricably linked issues arising from implementations of emerging technologies such as artificial intelligence, big data analytics, virtual and augmented reality, and embedded, ubiquitous computing. These presentations seek to amplify the intellectual history of these current developments by posing much-needed questions about antecedent developments. The goal of this panel is to enhance understanding and ensure that participants are well equipped to engage with the necessity of embedding ethical and human-centered perspectives into technological solutions.

RESUMES OF PARTICIPANTS

PANELISTS

Sachi Arafat is an Assistant Professor at King Abdulaziz University, KSA where he teaches Data Science. He was previously a Royal Academy of Engineering Research Fellow at the University of Glasgow, UK, where he also completed the first doctoral work on Quantum-theory inspired Retrieval with Keith van Rijsbergen. He is co-author with Elham Ashoori of a book on Search Foundations (MIT Press, forthcoming).

Michael K. Buckland is emeritus professor in the School of Information at the University of California Berkeley. He worked as a librarian in England and the USA before becoming Dean of the School of

Librarianship at Berkeley and, later, coordinator for library plans and policies for the multi-campus University of California system. He has written extensively on the history and theory of Information Science, with a special interest in the work of forgotten pioneers, and was ASIST President in 1998.

Kathryn La Barre is an Associate Professor at the School of Information Sciences and Gender and Women's Studies faculty affiliate at the University of Illinois at Urbana-Champaign. Her work interrogates the power dynamics of historical and contemporary naming practices in cultural heritage collections. She has served ASIST as a Member of the 75th Anniversary task force and helps facilitate the oral history project 'Leaders of Information Science Worldwide'. A Director-at-Large, she chaired the ASIST 80th Anniversary working group, and is the newly-appointed ASIST Curator.

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